

## REMARKS

The August 22, 2005 Office Action was based upon pending claims 1-3 and 5-44. This amendment amends Claims 1, 8, 10, 12-18, 20, 21, 23, 27, 29, 30, 32, 33, 35, 37, and 38, and cancels Claims 2, 5, 7, 9, 11, 22, 24, 25, 28, 31, 36, and 39-44. Thus, after entry of this amendment, Claims 1, 3, 6, 8, 10, 12-21, 23, 26, 27, 29, 30, 32-35, 37, and 38 are pending and presented for further consideration.

In the August 22, 2005 Office Action, the Examiner rejected Claims 1-3 and 5-44. In particular, the Examiner rejected Claims 1-3, 5, 6, 8-19, 21-33 and 35-44 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,885,003 ("the Ladden patent") in view of U.S. Patent No. 6,104,996 ("the Yin patent") in view of U.S. Patent No. 6,130,577 ("the Tamba patent") further in view of U.S. Patent No. 6,002,719 ("the Parvulescu patent"). The Examiner further rejected Claims 7, 20 and 34 under 35 U.S.C. § 103(a) as being unpatentable over the combination of the Ladden patent in view of the Yin patent in view of the Tamba patent in view of the Parvulescu patent and in further view of U.S. Patent No. 5,469,471 ("the Wheatley III patent").

### **REJECTION OF CLAIMS 1-3, 5, 6, 8-19, 21-33 and 35-44 UNDER 35 U.S.C. § 103(a)**

The Examiner rejected Claims 1-3, 5, 6, 8-19, 21-33 and 35-44 under 35 U.S.C. § 103(a) as being unpatentable over the Ladden patent in view of the Yin patent in view of the Tamba patent and further in view of the Parvulescu patent.

#### **Claims 1, 8, 27, and 30,**

Ladden appears to teach determining in a base station whether to switch coders and switching the coders in the mobile unit.

Ladden, Yin, Tamba, Parvulescu, individually or in any combination thereof, do not teach determining in a mobile unit a bit error rate of a received signal, comparing in the mobile unit the bit error rate to a predetermined threshold, and calculating in the mobile unit whether to switch in a mobile unit between a bit-exact speech coder and a non bit-exact speech coder based on the bit error rate of the received signal.

In contrast, an embodiment of the invention comprises a mobile unit comprising a bit-exact speech coder and a non bit-exact speech decoder, a signal strength

detector, which measures in the mobile unit the received signal to determine in the mobile unit a bit error rate, and a coder selector which compares in the mobile unit the bit error rate with a threshold to calculate in the mobile unit whether to switch between a bit-exact speech coder producing a high quality transmit signal and a non bit-exact speech decoder producing a low quality transmit signal based on the bit error rate of the received signal.

The references cited by the Examiner do not disclose, teach, or suggest a wireless communication system comprising a mobile unit which receives signals from a base station, the mobile unit containing a bit-exact speech coder and a non bit-exact speech coder, the mobile unit encoding voice data in a signal to transmit using either the bit-exact speech coder or the non bit-exact speech coder, a signal strength detector in the mobile unit which measures the signals received by the mobile unit to determine a bit error rate of the received signal, where the mobile unit averages several measurements of the received signal to determine an average bit error rate, and a coder selector in the mobile unit which is in communication with the signal strength detector in the mobile unit, the coder selector in the mobile unit compares the average bit error rate of the received signal to a predetermined threshold to calculate whether to switch between the non bit-exact speech coder and the bit-exact speech coder based on the average bit error rate of the received signal from the signal strength detector. Further, the coder selector switches from the non bit-exact speech coder to the bit-exact speech coder when the average bit error rate of the received signal exceeds the predetermined threshold and the coder selector switches from the bit-exact speech coder to the non bit-exact speech coder when the average bit error rate of the received signal is below the predetermined threshold.

Applicants assert that Claims 1, 8, 27, and 30 are not obvious in view of Ladden, Yin, Tamba, and Parvulescu. Applicants therefore respectfully submit that Claims 1, 8, 27, and 30 are patentably distinguished over the cited references and Applicants respectfully request allowance of Claims 1, 8, 27, and 30.

### **Claims 18 and 35**

Ladden appears to teach determining in a base station whether to switch coders and switching the coders in the mobile unit.

Ladden, Yin, Tamba, Parvulescu, individually or in any combination thereof, do not teach determining in the mobile unit the loading on the processor in the mobile unit, comparing in the mobile unit the loading on the processor to a threshold, and calculating in the mobile unit whether to switch between a bit-exact speech coder and a non bit-exact speech coder based on the processor loading.

In contrast, an embodiment of the invention comprises a wireless communication system comprising a processor usage indicator in the mobile unit which determines the loading on the processor in the mobile unit, and a speech coder selector in the mobile unit which compares the loading on the processor to a threshold to calculate whether to switch between a bit-exact speech coder and a non bit-exact speech coder.

The references cited by the Examiner do not disclose, teach, or suggest a wireless communication system comprising a processor usage indicator in a mobile unit, which determines the loading on a processor in the mobile unit, and a speech coder selector in the mobile unit, which is in communication with the processor usage indicator. The speech coder selector in the mobile unit compares the loading on the processor to a predetermined threshold to calculate whether to switch between a non bit-exact speech coder and a bit-exact speech coder based on the loading on the processor from the processor usage indicator. Further, the speech coder selector switches from the bit-exact speech coder to the non bit-exact speech coder when the loading on the processor exceeds the predetermined threshold and switches from the non bit-exact speech coder to the bit-exact speech coder when the loading on the processor is below the predetermined threshold.

Applicants assert that Claims 18 and 35 are not obvious in view of Ladden, Yin, Tamba, and Parvulescu. Applicants therefore respectfully submit that Claims 18 and 35 are patentably distinguished over the cited references and Applicants respectfully request allowance of Claims 18 and 35.

**Claims 3, 6, 10, 12, 13-17, 19, 21, 23, 26, 29, 32, 33, 37, and 38**

Claims 3 and 6, which depend from Claim 1, Claims 10, and 12-17, which depend from Claim 8, Claims 19, and 21, 23, and 26, which depend from Claim 18, Claim 29, which depends from Claim 27, Claims 32 and 33, which depend from Claim 30, and Claims 37 and 38, which depend from Claim 35, are believed to be patentable

for the same reasons articulated above with respect to Claims 1, 8, 18, 27, 30, and 35, respectively, and because of the additional features recited therein.

**Claims 2, 5, 9, 11, 22, 24, 25, 28, 31, 36, and 39-44**

By this amendment, Applicants have canceled Claims 2, 5, 6, 9, 11, 15, 16, 17, 22, 24, 25, 28, 31, 36, and 39-44 without prejudice or disclaimer. Accordingly, Applicants respectfully request the Examiner to withdraw the objection under 35 U.S.C. § 103(a) as being unpatentable over the Ladden patent in view of the Yin patent in view of the Tamba patent and further in view of the Parvulescu patent.

**REJECTION OF CLAIMS 7, 20, 34 UNDER 35 U.S.C. § 103(a)**

The Examiner rejected Claims 7, 20, 34 under 35 U.S.C. § 103(a) as being unpatentable over the combination of the Ladden patent in view of the Yin patent in view of the Tamba patent in view of the Parvulescu patent, and further in view of the Wheatley III patent. In view of the following discussion, Applicant respectfully traverses this rejection.

**Claims 20 and 34**

Claims 20 and 34, which depend from Claims 18, and 30, respectively are believed to be patentable for the same reasons articulated above with respect to Claims 18, and 30, respectively, and because of the additional features recited therein.

**Claim 7**

By this amendment, Applicants have canceled Claim 7 without prejudice or disclaimer. Accordingly, Applicants respectfully request the Examiner to withdraw the objection under 35 U.S.C. § 103(a) as being unpatentable over the combination of the Ladden patent in view of the Yin patent in view of the Tamba patent in view of the Parvulescu patent, and further in view of the Wheatley III patent.

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**CONCLUSION**

Applicants have endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. In light of the above remarks, reconsideration and withdrawal of the outstanding rejections is specifically requested.

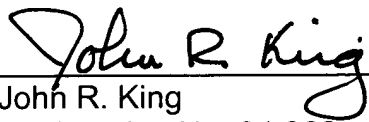
Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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